

Notice of Allowability

Application No.

10/653,824

Examiner

Paul D. Kim

Applicant(s)

WILKIE ET AL.

Art Unit

3729

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 1/31/2006.
2. ☒ The allowed claim(s) is/are 1-12 and 16-27.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152).
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION

This office action is a response to the amendment filed on 1/31/2006.

Examiner's Amendment

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

The application has been amended as follows:

IN THE CLAIM

Cancelled the non-elect claims 13-15 and 28-30.

2. The following is an examiner's statement of reasons for allowance: The prior art of record fails to disclose the claimed invention such as a first film having a first conductive pattern and a second conductive pattern formed on the at least one piezoelectric fiber sheet having a plurality of piezoelectric fibers in juxtaposition to adhesive material by stacking the alternating layers of piezoelectric material and adhesive material, the first conductive pattern being electrically isolated from the second conductive pattern, the first and second conductive patterns each having a plurality of electrodes that cooperate to form a pattern of interdigitated electrodes. The closest reference of Oakley et al. teach a process of stacking the alternating layers of piezoelectric material and adhesive material to form at least one piezoelectric fiber

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sheet having a plurality of piezoelectric fibers in juxtaposition to adhesive material and forming a first film having a first conductive pattern and a second conductive pattern formed on the at least one piezoelectric fiber sheet. However, the first film having the first conductive pattern and the second conductive pattern of Oakley et al. does not have a plurality of electrodes that cooperate to form a pattern of interdigitated electrodes. Also, another closet reference of Lazarus et al. teach a process of forming a first film having a first conductive pattern and a second conductive pattern formed on the at least one piezoelectric fiber sheet, wherein the first and second conductive patterns each having a plurality of electrodes that cooperate to form a pattern of interdigitated electrodes. However, Lazarus et al. fail to teach at least one piezoelectric fiber sheet having a plurality of piezoelectric fibers in juxtaposition to adhesive material by stacking the alternating layers of piezoelectric material and adhesive material. Therefore, it would not be obvious to modify Oakley et al. by adding the first and second conductive patterns each having a plurality of electrodes that cooperate to form a pattern of interdigitated electrodes, or to modify Lazarus et al. by adding at least one piezoelectric fiber sheet having a plurality of piezoelectric fibers in juxtaposition to adhesive material by stacking the alternating layers of piezoelectric material and adhesive material, or combined Oakley et al. and Lazarus et al. together, since doing so would destroy the structure of transducer of Oakley et al. or Lazarus et al.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

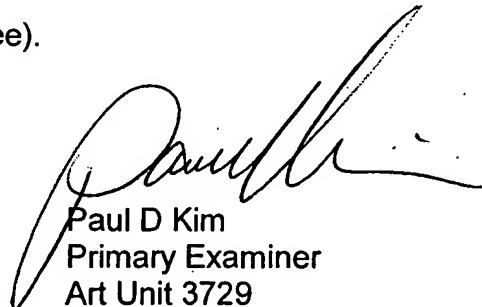
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accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

3. Claims 1-12 and 16-27 are allowed.
4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul D. Kim whose telephone number is 571-272-4565. The examiner can normally be reached on Monday-Friday between 6:00 AM to 2:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on 571-272-4690. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Paul D Kim
Primary Examiner
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